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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/562,673   | 12/29/2005  | Hirokazu Furuc       | 283483US0PCT        | 5934             |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET |             |                      | EXAMINER            |                  |
|  |             |                      | WU, SHEAN CHIU      |                  |
| ALEXANDRIA, VA 22314   |             | ·                    | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1756                |                  |
|  |             |                      |                     |                  |
| •  |             |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|  |             |                      | 08/24/2007          | ELECTRONIC       |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com oblonpat@oblon.com jgardner@oblon.com

|   | •  |   |  |  |  |  |
|---|--|---|--|--|--|--|
|   | Application No.  | Applicant(s)  |  |  |  |  |
|   | 10/562,673   | FURUE ET AL.  |  |  |  |  |
| Office Action Summary   | Examiner   | Art Unit  |  |  |  |  |
|   | Shean C. Wu  | 1756  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |  |   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period was preply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).   | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timused and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | I.  lely filed  the mailing date of this communication.  D (35 U.S.C. § 133). |  |  |  |  |
| Status  |  |   |  |  |  |  |
| 1) Responsive to communication(s) filed on 29 De  | <u>ecember 2005</u> .  |   |  |  |  |  |
| · <u> </u>  | ,—   |   |  |  |  |  |
|   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |   |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |  |   |  |  |  |  |
| Disposition of Claims   |  |   |  |  |  |  |
| 4)  Claim(s) <u>1-4</u> is/are pending in the application.  4a) Of the above claim(s) is/are withdray  5)  Claim(s) is/are allowed.  6)  Claim(s) <u>1-4</u> is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or   |  |   |  |  |  |  |
| Application Papers  |  |   |  |  |  |  |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine   | epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj  | e 37 CFR 1.85(a).<br>ected to. See 37 CFR 1.121(d).                           |  |  |  |  |
| Priority under 35 U.S.C. § 119  |  |   |  |  |  |  |
| <ul> <li>12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) ☒ All b) ☐ Some * c) ☐ None of:</li> <li>1. ☐ Certified copies of the priority documents have been received.</li> <li>2. ☐ Certified copies of the priority documents have been received in Application No</li> <li>3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |  |   |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 12/29/05.   | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:   | nte   |  |  |  |  |

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## **DETAILED ACTION**

## Claim Rejections - 35 USC § 112

- 1. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. The amount of polymerizable liquid crystal monomer is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See page 5, line 7, page 8, lines 23-24 and page 12, line 8 in the present specification. The present specification states the present invention is mainly depending on the amount of monomer added.
- 2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references do not disclose the present smectic liquid crystal device and process for producing uniform orientation of a smectic liquid crystal. The process comprises the steps of inducing an isotropic phase-nematic phase-smectic phase as a phase sequence of mixture obtained by adding a photopolymerizable monomer liquid crystal exhibiting nematic phase to a smectic liquid crystal and irradiating the mixture with UV rays so that the monomer is photopolymerized into a polymer to thereby form a smectic liquid crystal medium with uniform orientation structure.
- 3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 9:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shean C Wu
Primary Examiner
Art Unit 1756

scw